# Math 115 Preparation for Calculus Fall 2020

**Instructors**: Dr. Hoffmeister (amhoff@illinois.edu) and Ms. Placzek (lplaczek@illinois.edu)

**Office Hours:**
See Moodle for a detailed list of office hours for both your instructor and your TA under the "Help!" tab. You are welcome to attend any of the office hours, whichever times work best with your schedule. Hours are subject to change, so always check for an announcement on Moodle or Campuswire with the most recent updates.

**Welcome to Math 115: Course Description**
The purpose of Math 115 is to help prepare you for the calculus sequence at UIUC. In this course we will explore topics from high school mathematics, but at a more advanced and conceptual viewpoint. The goals of the course are to introduce you to precalculus concepts that will refine your underlying logic and reasoning skills, create a familiarity with mathematical notation, and give you opportunities to improve your critical thinking, problem solving, and study skills.

**Prerequisites**
This course is designed for students who have already had coursework in algebra and trigonometry. If you need further exposure in algebra, you may want to consider taking Math 112 (College Algebra) before taking Math 115. All students taking Math 115 must have a minimum ALEKS placement score of 65%. If you do not have this score by the fifth day of class, you will automatically be removed from the course and possibly be placed in Math 112. For more information about the placement exam requirement, you can visit http://www.math.illinois.edu/ALEKS/ or contact a math advisor at mathadvising@illinois.edu.

**Website**
We will be maintaining a course website through Moodle (https://learn.illinois.edu/). This site will contain links to general course information and documents, announcements, homework assignments, grades, etc. *You should always check our course Moodle page before emailing us with questions.*

**Course Materials**
A course packet will be required for the course and is available for purchase at the Illini Union Bookstore. You have the option of purchasing a print copy or a digital copy this semester.

Below are recommended supporting textbooks for the course. These textbooks may be helpful resources when studying course notes or working on the homework assignments. The textbook, *Calculus: Early Transcendentals*, 8th Edition by James Stewart, will be referenced on the course outline.

**Recommended Supporting Textbooks**

1. *Calculus: Early Transcendentals*, 8th Edition, by James Stewart
   This is the required textbook for the standard Calculus sequence (Math 220/221, 231, 241). The appendices and Chapter 1 contain many of the pre-calculus topics we will cover in this course, as well as some topics in Chapters 2 and 11. We will not be following this textbook in any sequential way.

2. Precalculus from OpenStax: https://openstax.org/details/books/precalculus
   This text is available online for free. It presents topics of precalculus addressed in a more traditional way. You may find it to be a good resource when studying course notes or working on the homework.

**Lecture Information**
While this course is set up as three different lecture sections with two different instructors, we will treat it as one combined course: All three sections will be presented with the same information either by Dr. Hoffmeister or Ms. Placzek. The lectures will be asynchronous and there will be pre-recorded videos available on our course Moodle page. You are expected to watch these videos each week and read any supplementary material. More information is given later in the syllabus regarding your grade for lecture participation.

**Discussion Information**
Discussion sections will meet synchronously during your regularly scheduled lecture time on Tuesdays in Zoom (links will be provided on our course Moodle page). You will meet with your assigned TA during this time to work collaboratively with your classmates on worksheets that are designed to help you better understand the concepts presented in the lecture videos. The discussion worksheet will be available on our course Moodle page. More information is given later in the syllabus regarding your grade for discussion meetings.

**Course Communication**
We will be using Campuswire as an online discussion forum for course-related questions. You must activate your Campuswire account through the invite sent to your university email. We strongly encourage you to be active in the online discussions and not only post any questions you may have, but also answer questions from your fellow classmates. The instructors and teaching assistants will be monitoring the discussions and will help answer and ask questions, too. Our hope is that the discussions on Campuswire will be an effective way for you to communicate with each other and us. If you need to contact your instructor or TA individually, you may post a private note on Campuswire.

**Grading**

Your grade will be comprised of the following:

| | |
|---|---|
| Lecture Knowledge Checks | 10% |
| Written Homework | 12.5% |
| Discussion | 12.5% |
| Exam 1 | 15% |
| Exam 2 | 15% |
| Exam 3 | 15% |
| Final Exam | 20% |

Your grades for the course will be recorded in the grade book on the course website in Moodle. The grading scale for the course is given in the table.

| Percentage | Grade |
|---|---|
| 98-100 | A+ |
| 93-97.99 | A |
| 90-92.99 | A- |
| 87-89.99 | B+ |
| 83-86.99 | B |
| 80-82.99 | B- |
| 77-79.99 | C+ |
| 73-76.99 | C |
| 70-72.99 | C- |
| 67-69.99 | D+ |
| 63-66.99 | D |
| 60-62.99 | D- |
| 0-59.99 | F |

You may request a re-grade on any homework or exam problem by submitting the "Grade Explanation Form" along with a screenshot of the problem. This form is available in Moodle in the Course Information folder at the top of the website. You have one week from the time the assignment is returned to submit this form by e-mail to your TA. After one week has passed, no changes will be made to your score.

**Lecture Knowledge Checks**
Your lecture knowledge check grade is worth 10% of your overall course grade. Each week we will be posting several pre-recorded lecture videos to the course website that correspond to the notes in the course packet. You will have weekly "Knowledge Check" questions pertaining to the content in the videos. You are expected to watch the videos in their entirety and fully answer each question. Each lecture knowledge check is worth 5 points.

**Written Homework**
You will have written assignments most weeks throughout the semester and will be given detailed instructions for each. They will be posted in the "Homework Assignments" folder in the Moodle course page. The purpose of the written homework is to apply concepts learned in lecture and discussion to new problems. These assignments may include material not necessarily presented in lecture. We expect that you may struggle with some of the problems and it may take you some time to complete the assignment. It is your responsibility to make sure you understand the concepts covered on the assignments.

A few problems from each written assignment will be graded for correctness. Points for each homework assignment will be awarded based on the correctness of the selected problems and the following:

- Completeness: A serious effort was made at providing solutions to each of the assigned problems.

- Neatness: Solutions are clearly and neatly written, labeled correctly (name and discussion section should be included), and submitted as one document.

You will submit your homework assignments in Moodle. Submission details are available under the "Homework Assignments" tab. Please make sure to submit your homework assignments by the due date listed on each assignment. Late submissions will not be accepted.

**Discussion**
Your discussion grade is worth 12.5% of your overall course grade. Each discussion section you will have the opportunity to earn 10 points toward your daily grade. The 10 points will be calculated as follows:

- Attendance (5 points): Your attendance during discussion meetings in Zoom is required. You are expected to be on time and stay for the entire class period.

- Participation and Preparation (5 points): You are expected to come to the discussion meetings ready to discuss the course material with your classmates.

There are 15 discussion meetings this semester and you are required to attend 12 of those meetings. The total number of points available for discussion meetings is 120 points. If you choose to attend more than 12 meetings (which we hope that you do!), you will receive 10 extra credit points for each meeting. For example, if you attend and actively participate in each of the 15 discussion meetings this semester, you will earn 150/120 points for this portion of your grade.

**Exams**
There will be three exams and a comprehensive final exam. Officially excused absences from scheduled exams will either be made up by taking a conflict and/or oral examination on the subject missed (instructor's discretion). You must have prior approval with Dr. Hoffmeister or Ms. Placzek before you can take a conflict exam.

*In the event that you may need to miss an exam due to an emergency, you must notify Dr. Hoffmeister or Ms. Placzek by e-mail before the exam.* Failure to give notification before the exam will result in a score of zero. No accommodations will be made for unexcused absences and it is completely at our discretion whether or not your absence is deemed excused or if there will be a penalty assessed for your absence from the exam.

The exams will be available in Moodle as a pdf file on the exam dates and times given below. Your exam must be uploaded in Moodle by the ending time or it will not be accepted. Someone will be available in Zoom during the exam time to answer any questions you may have while taking the exam. Detailed information, including uploading instructions and Zoom link, about each exam will be given on our course Moodle page.

| | | |
|---|---|---|
| **Exam 1** | **Wednesday, September 23** | **6:00-8:00pm** |
| **Exam 2** | **Wednesday, October 28** | **6:00-8:00pm** |
| **Exam 3** | **Monday, December 7** | **6:00-8:00pm** |
| **Final Exam** | **Tuesday, December 15** | **1:30-4:30pm** |

Once the date and time of the final exam is confirmed, we will update the syllabus and make an announcement in Moodle.

Note: Failure to take the final exam will result in a failing grade for the semester.

**Additional Information**

- **Calculator Policy**
  - Calculators will not be allowed in the course. If you are planning to continue in the calculus sequence at UIUC, it is expected that you can do basic arithmetic, geometry, and trigonometry without the aid of a calculator. The use of a calculator during an exam will be construed as cheating on the exam.

- **Academic Integrity**
  - Violations of academic integrity will be taken extremely seriously and will be handled under the procedures of Article I, Part 4 of the Student Code. Cheating or plagiarism in any aspect of the course will result in serious implications. Please see http://studentcode.illinois.edu/article1_part4_1-402.html for more information.

**Additional Information (cont'd.)**

- **Academic Accommodations**
  - To obtain disability-related academic adjustments and/or auxiliary aids, students with disabilities must contact the Disability Resources and Educational Services (DRES) as soon as possible. Contact disability@illinois.edu or visit https://www.disability.illinois.edu/academic-support/accommodations for more information. If you are entitled to accommodations sanctioned by DRES, submit your official documentation to your instructor within one week of the beginning of the course to ensure your accommodations are being met.

- **Class Etiquette**
  - The effectiveness of this course is dependent upon the creation of an encouraging and safe classroom environment. Exclusionary, offensive, or harmful speech will not be tolerated and in some cases will be subject to University harassment procedures. We are each responsible for creating a positive and safe environment that allows all students equal respect and comfort. We expect each of you to help establish and maintain an environment where you and your peers can contribute without fear of ridicule or intolerant or offensive language. If your behavior is in any way inappropriate for a class discussion, you will be removed from the post or Zoom meeting.

- **Academic Support**
  - Have a positive attitude and be active in your learning! ☺ We believe you are very capable of learning the course material and want to help you gain an understanding of important topics in the course. In order to be successful in the course, we strongly encourage you to be an active participant in your learning. Here are ways you can do that:

    - Watch and engage in the lecture videos
    - Complete homework assignments in a timely manner
    - Contribute to discussion sessions
    - Study for exams in advance (don't wait until the night before!)
    - Be active in Campuswire
    - Ask questions

    If you need any help in the course, please do not hesitate to ask. You are encouraged to seek help sooner rather than later by attending office hours or reaching out to your instructor or TA. Please understand that the course material keeps building throughout the semester, so it is important that you get help along the way if you don't understand a concept.

We look forward to working with each of you this semester. We are passionate about teaching mathematics and hope we can work together to help you better understand concepts in Precalculus. Please feel free to contact us if you have any questions throughout the semester.

Any changes to the syllabus will be announced on Moodle.